## NASA's Fifth Workshop for PRA Methods (PRAM-5) for Practitioners

## NASA Assurance Technology Center Cleveland, Ohio September 28 - October 1, 2004

Tuesday, Sept. 28, 2004	Unit	·	
7:30 a.m.		CONTINENTAL BREAKFAST	
8:00 a.m.	1	Welcoming Address, Introduction	Dr. Michael Stamatelatos, NASA HQ
9:15 a.m.	2	Risk Management	Dr. George Apostolakis, MIT
10:15 a.m.		BREAK	<b>C</b> 1
10:45 a.m.	3	PRA Overview	Dr. Homayoon Dezfuli, NASA HQ
12:00 p.m.		LUNCH	
1:00 p.m.		PRA Overview (continued)	
2:15 p.m.	4	Probability and its Application to Reliability and Risk Assessment	Dr. George Apostolakis, MIT
3:00 p.m.		BREAK	
3:15 p.m.		Probability and its Application to Reliability and Risk Assessment (continued)	
4:00 p.m.	5	Basic PRA Modeling Techniques and Fault Tree Analysis	Dr. William Vesely, NASA HQ
5:00 p.m.		ADJOURN	
Wednesday, Sept. 29, 2004			
7:30 a.m.		CONTINENTAL BREAKFAST	
8:00 a.m.		Basic PRA Modeling Techniques and Fault Tree Analysis (continued)	Dr. William Vesely, NASA HQ
9:00 a.m.	6	Event Frequencies & Hardware Failure Models	Dr. George Apostolakis, MIT
9:45 a.m.		BREAK	
10:15 a.m.	7	Uncertainties in PRA	Dr. George Apostolakis, MIT
11:00 a.m.	8	Data Collection and Parameter Estimation	Dr. Ali Mosleh, University of Maryland
12:15 p.m.		LUNCH	
1:15 p.m.	9	Modeling and Quantification of Common Cause Failures	Dr. Ali Mosleh, University of Maryland
3:00 p.m.		BREAK	
3:30 p.m.	10	Uncertainty Propagation	Dr. Homayoon Dezfuli, NASA HQ
4:30 p.m.		ADJOURN	
<u>Thursday, Sept. 30, 2004</u>			
8:00 a.m.		CONTINENTAL BREAKFAST	
8:30 a.m.	11	Human Reliability Analysis	Dr. Ali Mosleh, University of Maryland
10:30 a.m.		BREAK	
11:00 a.m.	12	Importance Measures & Risk Ranking	Dr. Homayoon Dezfuli, NASA HQ
12:00 a.m.		LUNCH	
1:00 p.m.	13	PRA Modeling Process (Example 1)	Dr. Todd Paulos, T. Paulos, Inc. and Mr. Chester Everline, SCIENTECH, Inc.

3:00 p.m.		BREAK	
3:30 p.m.		PRA Modeling Process (Example 1 continued)	
5:00 p.m.		ADJOURN	
Friday, Oct. 1, 2004			
8:00 a.m.		CONTINENTAL BREAKFAST	
8:30 a.m.		PRA Modeling Process (Example 2)	Dr. Todd Paulos, Mr. Chester Everline
10:00 a.m.		BREAK	
10:30 a.m.	14	Physical & Phenomenological Models	Dr. Sergio Guarro, Aerospace Corp.
11:30 a.m.		LUNCH	
12:30 p.m.	15	Software Failure Modeling	Dr. Sergio Guarro, Aerospace Corp.
1:30 p.m.		Questions and Answers Session (if Needed)	
2.00 p.m.		ADJOURN	